

Notice of Allowability

Application No.

09/686,628

Examiner

Ted T. Vo

Applicant(s)

HINKER, PAUL J.

Art Unit

2191

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to request Examiner's Amendment to Claims on 10/18/2006.
2. ☒ The allowed claim(s) is/are 3,4,13,14,16 and 21-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date 09/25/02
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 2007-10-26
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____


TED VO
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. This action is in the request by Applicants to make an Examiner's Amendment to an allowed claim filed on 10/18/06, addressed in the Final office Action mailed on 01/16/2007.

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

2. Authorization for this examiner's amendment was given in a telephone interview with Darren M. Jiron, Reg. No. 45,777 on 10/24/07.

Examiner Amendment is given to amend the claims in the Allowable subject matter, as being dependent upon a rejected base claim, and would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

3. In the Claims filed on 10/18/06, **amend the claims 1-20 and add new claims 21-42** as follows:

Claims 1-2. (Canceled)

Claim 3. (Currently amended) A method in a data processing system, comprising the steps of:

receiving 32-bit source code;

generating, from the 32-bit source code, a 32-bit interface file including statements describing characteristics of parameters in the 32-bit source code, wherein generating a 32-bit interface file includes invoking an interface generator that:

scans the 32-bit source code and creates the interface file according to a definition; and

adds to the interface file the statements describing characteristics of the parameters by parsing the 32-bit source code; and

automatically generating, based on the statements in the 32-bit interface file, a 32-bit to 64-bit conversion stub that is used by the 32-bit source code to invoke 64-bit code, wherein automatically generating a 32-bit to 64-bit conversion stub includes invoking a stub generator that:

reads the 32-bit interface file to populate a hash table with information identifying the parameters in the interface file;

re-reads the 32-bit interface file to populate the hash table with information indicating processing that occurs for the statements in the interface file; and

generates the 32-bit to 64-bit conversion stub using the hash table.

Claim 4. (Previously presented) The method of claim 3, wherein the 32-bit source code includes at least one of an integer parameter and a logical parameter and wherein generating a 32-bit interface includes:

determining whether the at least one of an integer and logical parameter has input directionality, output directionality, or input and output directionality; and

inserting into the 32-bit interface file code generator statements corresponding to the determined directionality of the at least one parameter.

Claims 5-12. (Canceled)

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Claim 13. (Currently amended) A computer-readable ~~medium~~ memory device containing instructions for controlling a data processing system to perform a method comprising the steps of:

receiving 32-bit source code;

generating, from the 32-bit source code, a 32-bit interface file including statements describing characteristics of parameters in the 32-bit source code, wherein generating a 32-bit interface file includes invoking an interface generator that

scans the 32-bit source code and creates the interface file according to a definition; and

adds to the interface file the statements describing characteristics of the parameters by parsing the 32-bit source code; and

automatically generating a 32-bit interface to 64-bit source code, based on the statements in the 32-bit interface file, a 32-bit to 64-bit conversion stub that is used by the 32-bit source code to invoke 64-bit code, wherein automatically generating a 32-bit to 64-bit conversion stub includes invoking a stub generator that

reads the 32-bit interface file to populate a hash table with information identifying the parameters in the interface file;

re-reads the 32-bit interface file to populate the hash table with information indicating processing that occurs for the statements in the interface file; and

generates the 32-bit to 64-bit conversion stub using the hash table.

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Claim 14. (Previously presented) The computer-readable ~~medium~~ memory device of claim 13, wherein the 32-bit source code has a subprogram with a parameter and wherein generating a 32-bit interface file includes:

determining whether the parameter in the subprogram has input directionality, output directionality, or input and output directionality; and

inserting into the 32-bit interface file code generator statements corresponding to the determined directionality of the parameter in the subprogram.

Claim 15. (Canceled)

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Claim 16. (Previously presented) A data processing system comprising:

means for receiving 32-bit source code;

means for generating, from the 32-bit source code, a 32-bit interface file including statements describing characteristics of parameters in the 32-bit source code,

wherein the means for generating a 32-bit interface file includes means for invoking an interface generator that

scans the 32-bit source code and creates the interface file according to a definition; and

adds to the interface file the statements describing characteristics of the parameters by parsing the 32-bit source code; and

means for automatically generating, based on the statements in the 32-bit interface file, a 32-bit to 64-bit conversion stub that is used by the 32-bit source code to invoke 64-bit code, wherein the means for automatically generating a 32-bit to 64-bit conversion stub includes means for invoking a stub generator that

reads the 32-bit interface file to populate a hash table with information identifying the parameters in the interface file;

re-reads the 32-bit interface file to populate the hash table with information indicating processing that occurs for the statements in the interface file; and

generates the 32-bit to 64-bit conversion stub using the hash table.

Claims 17-20. (Canceled)

Claim 21. (New) The method of claim 3, wherein generating a 32-bit interface file includes:

adding to the interface file statements indicating a number of dimensions of at least one parameter and a number of elements in each dimension.

Claim 22. (New) The method of claim 3, wherein the characteristics include an indication of a conditional value for at least one of the required parameters,

Claim 23. (New) The method of claim 3, wherein the characteristics include an indication of whether at least one of the required parameters is used to contain a return value.

Claim 24. (New) The method of claim 3, wherein the characteristics include a directionality of at least one of the required parameters.

Claim 25. (New) The method of claim 3, wherein the characteristics include an indication of whether at least one of the required parameters returns a multidimensional variable.

Claim 26. (New) The method of claim 3, wherein the characteristics include an indication of whether a size of at least one of the required parameters is based on another one of the required parameters.

Claim 27. (New) The method of claim 3, wherein the characteristics include an indication of whether at least one of the required parameters is a work space parameter.

Claim 28. (New) The computer-readable memory device of claim 13, wherein generating a 32-bit interface file includes:

adding to the interface file statements indicating a number of dimensions of at least one parameter and a number of elements in each dimension.

Claim 29. (New) The computer-readable memory device of claim 13, wherein the characteristics include an indication of a conditional value for at least one of the required parameters.

Claim 30. (New) The computer-readable memory device of claim 13, wherein the characteristics include an indication of whether at least one of the required parameters is used to contain a return value.

Claim 31. (New) The computer-readable memory device of claim 13, wherein the characteristics include a directionality of at least one of the required parameters.

Claim 32. (New) The computer-readable memory device of claim 13, wherein the characteristics include an indication of whether at least one of the required parameters returns a multidimensional variable.

Claim 33. (New) The computer-readable memory device of claim 13, wherein the characteristics include an indication of whether a size of at least one of the required parameters is based on another one of the required parameters.

Claim 34. (New) The computer-readable memory device of claim 13, wherein the characteristics include an indication of whether at least one of the required parameters is a work space parameter.

Claim 35. (New) The system of claim 16, wherein the 32-bit source code includes at least one of an integer parameter and a logical parameter and wherein the means for generating a 32-bit interface includes:

means for determining whether the at least one of an integer and logical parameter has input directionality, output directionality, or input and output directionality; and

means for inserting into the 32-bit interface file code generator statements corresponding to the determined directionality of the at least one parameter.

Claim 36. (New) The system of claim 16, wherein the means for generating a 32-bit interface file includes:

means for adding to the interface file statements indicating a number of dimensions of at least one parameter and a number of elements in each dimension.

Claim 37. (New) The system of claim 16, wherein the characteristics include an indication of a conditional value for at least one of the required parameters.

Claim 38. (New) The system of claim 16, wherein the characteristics include an indication of whether at least one of the required parameters is used to contain a return value.

Claim 39. (New) The system of claim 16, wherein the characteristics include a directionality of at least one of the required parameters.

Claim 40. (New) The system of claim 16, wherein the characteristics include an indication of whether at least one of the required parameters returns a multidimensional variable.

Claim 41. (New) The system of claim 16, wherein the characteristics include an indication of whether a size of at least one of the required parameters is based on another one of the required parameters.

Claim 42. (New) The system of claim 16, wherein the characteristics include an indication of whether at least one of the required parameters is a work space parameter.

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Reasons for Allowance

4. Claims 3-4, 13-14, 16, and 21-42 are allowed.

Examiner's Amendment is provided to amend the allowable claim 20, which is rewritten in independent forms of a method, a computer readable device, a system; including all of the limitations of the base claims and any intervening claims.

As known in the art, the conversion for 2n-bit to 2n+1-bit, is performed when increasing in bit-size of memory/microprocessor. The prior art of record, Coutant or Microsoft, has shown such a conversion.

However,

Anticipation of a claim under § 102 can be found if the prior art reference discloses every element of the claim. See *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986) and *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1458, 221 USPQ 481,485 (Fed. Cir. 1984).

In rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See *In re Fine*, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner must make the factual determinations set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966). "[T]he examiner bears the initial burden, on review of the prior art or on any other ground, of presenting a *prima facie* case of unpatentability." *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). Furthermore, "there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness'... [H]owever, the analysis need not seek out precise teachings directed to the specific subject matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007)(quoting *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006)).

The limitation shown in claim 20: "reads the 32-bit interface file to populate a hash table with information identifying the parameters in the interface file; re-reads the 32-bit interface file to populate the hash table with information indicating processing that occurs for the statements in the interface file; and generates the 32-bit to 64-bit conversion stub using the hash table", is not disclosed in the prior arts of record.

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Therefore, the following is an examiner's statement of reasons for allowance: The cited prior arts taken alone or in combination fail to teach claimed invention comprising the features as a whole, recited in such manners in the independent Claims.


5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ted T. Vo whose telephone number is (571) 272-3706. The examiner can normally be reached on 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Y. Zhen can be reached on (571) 272-3708.

The facsimile number for the organization where this application or proceeding is assigned is the Central Facsimile number **571-273-8300**.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TTV
October 26, 2007


TED VO
PRIMARY EXAMINER